violations of the ILEC's duty, under section 251(c)(1) of the Act, to negotiate in good faith, or the requirements of section 252(h) and (i) of the Act.

The Department believes that the Commission should not tolerate nondisclosure provisions in interconnection or network elements agreements that would preclude the disclosure of information to the Commission, state regulatory agencies or the Department of Justice. The Commission and the state regulators have a direct responsibility to enforce the various provisions of the Act, and their ability to do so in a manner that effectively promotes Congress' intent is dependent on their having more information rather than less. Efforts by the ILECs to deprive the regulators of relevant information, or to force them to use expensive and time-consuming compulsory process should not be condoned. This is not a situation where allowing disclosure might deter desired volitional conduct. Congress has mandated interconnection and access to network elements. The ILECs should not be allowed to extract nondisclosure agreements as a means of inducing their compliance with the statute. The Department of Justice has been given an important consultative role under section 271 of the Act, with respect to the appropriateness of RBOC entry into in-region interexchange service. In view of the stringent time limits imposed on the Commission under section 271, the Department's ability to perform its role, i.e., to promptly advise the Commission whether competitive conditions in particular markets are suitable to RBOC entry, will be enhanced by the ready availability of relevant information. Proprietary

information obtained by the Government is exempt from disclosure under the Freedom of Information Act, 5 U.S.C. § 552 (b)(4). Thus, concerns that the confidential treatment of proprietary information disclosed to a governmental agency might be lost as a result of a Freedom of Information Act request are unfounded and do not justify allowing private prohibitions on information transfers to government agencies. In sum, allowing the ILECs to prevent other private parties from disclosing relevant information to the Department would have an adverse effect on the effectuation of Congress' goals that would outweigh any effects of such disclosure on an ILEC.

V. THE COMMISSION SHOULD NOT LIMIT USE OF UNBUNDLED ELEMENTS TO SERVICES THAT ARE NOT AVAILABLE FOR RESALE OR REQUIRE THAT CARRIERS REQUESTING ACCESS TO UNBUNDLED NETWORK ELEMENTS BE PARTIALLY FACILITIES-BASED.

In its Comments[28] the Department asserted that requesting carriers had the right under section 251(c)(3) to obtain access to unbundled network elements of the ILECs and combine them to be able to provide their own exchange and exchange access services. We further stated that this right should not be limited to facilities-based carriers and that imposition of a facilities requirement would be impractical and unduly regulatory.[29] Based on our knowledge of emerging local exchange

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[28] Department Comments at 47.

[29] Department Comments at 49.

competition, access to the ILECs' network elements on an unbundled basis is essential to the continued development of competition within a reasonable time, especially for market segments such as residential services where the capital required to duplicate the ILECs' networks is very large.

The ILECs argue that the Commission should impose a number of limitations on the ability of entrants to obtain and use network elements, suggesting that in many cases the entrants should be required to resell services, under section 251(c)(4), rather than be permitted to obtain network elements, under section 251(c)(3). They propose two principal types of limitations to accomplish this. First, they urge the Commission to restrict the use of such network elements to the provision of services that are not available for resale under section 251(c)(4) . Second, they urge the Commission to limit access to network elements to partially facilities-based carriers.

The ILECs' justification for arguing that the resale provision should take precedence over the ILECs' duty to provide access to unbundled network elements is the assertion that Congress's intent was to not disturb existing local rate structures where some services are priced above cost to subsidize other services that regulators require to be priced below cost. ILEC profits under these rate structures would be largely protected under the "top down" pricing approach for resale, in which wholesale prices reflect existing retail prices less avoided costs. But under the cost-based pricing approach for network elements, competition would likely

erode the ILEC profits from selling at prices substantially above cost.[30]

This is precisely why the Commission should reject such limitations, not impose them. Competition cannot develop and flourish in the face of regulatory restrictions designed to protect incumbents' above-cost, supracompetitive prices from competition by new entrants. Efforts to protect such prices by making entry more difficult or costly will reduce the likelihood of successful entry. More importantly, they will deny consumers the benefits of lower prices, even to the extent that limited entry may occur [31]

Although the ILECs point to various expressions of Congressional concern regarding the level of residential rates, there is no provision in the Act or any statement in the legislative history asserting that the introduction of local competition will not have any effects on local rate structures. Obviously, Congress intended the Act to speed the development of competition in local

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[30] As Bell Atlantic suggests, "If long distance carriers can purchase network elements at incremental cost, as they claim, that price will be below the wholesale price of retail less avoided costs for all services that are remunerative today." Bell Atlantic at 14. See, Ameritech at 88-90, Nynex at 30.

[31] Contrary to Nynex's suggestion, rejection of such limitations would not be "allowing unbundling provisions to subsume resale provisions." Nynex at 37. Entrants would still need and use service resale as a means to compete in providing services that ILECs offer at below-cost retail prices. Absent the opportunity to serve such customers that is created by the "top down" resale pricing methodology, such customers would have little realistic opportunity to obtain the benefits of competition. By facilitating competition to serve these customers, the resale provisions of section 251(c)(4) offer a complementary entry vehicle that enables all segments of the market to realize competitive benefits.

telecommunications markets -- one of the Act's key provisions, section 253, specifically prevents the states from prohibiting competitive entry into those markets. Rather than taking the approach suggested by the ILECs of limiting competition, Congress chose to protect consumers that might not receive services at affordable rates in a competitive market through the universal service mechanism established in section 254 of the Act.

In addition to the argument that access to unbundled network elements should be limited to services where resale under section 251(c)(4) is not available, several ILECs maintain that they are only required to provide such access to competitors that are at least partially facilities-based. The principal basis for this position seems to be that Congress intended to encourage facilities-based competition, and, these ILECs argue, making unbundled elements available to competitors that were starting out with few or perhaps no facilities of their own would discourage facilities-based entrants.

As the Department views these markets, however, this premise is simply not true. There is no logical or empirical basis for assuming that making unbundled elements available to new entrants without facilities will discourage them from acquiring their own facilities after entry, or will discourage further investment by existing facilities-based competitors. Rather it is more likely that by reducing barriers to entry, more new competitors will enter the market, including entrants that will build their own networks when time and their financial circumstances

permit. This in turn will lead to the more rapid development of a competitive local market, which could be one reason that such unrestricted access is opposed by the ILECs and some other current competitors.

Aside from the absence of any plausible statutory basis[32] or sound policy reason for limiting access to partially facilities-based carriers, such a limitation would be difficult, if not impossible, to define and enforce. The proponents of a requirement that network elements be provided only to partially facilities-based carriers are conspicuously vague as to the precise contours of this restriction. A requirement that a requesting carrier merely have some facility of its own, however insignificant that facility might be, would be a largely meaningless requirement.

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[32] Bell Atlantic suggests that a facilities-based requirement can be extrapolated from section 251(c)(3), which requires ILEC's to provide access "at any technically feasible point," by construing this language to require the requesting carrier to have its own facilities at that point of interconnection. Bell Atlantic at 13. Such a requirement would obviously make it impossible to access any element more than a single layer of facilities from the network of the requesting carrier. For example, if a carrier requested access to an ILEC database located at an SCP on the ILEC's SS-7 network, this interpretation would require that the requesting carrier's facilities go directly to and interconnect at the SCP. Aside from the fact that the ILECs generally oppose interconnection at the SCP, it is often more practical for a carrier needing to access an SCP (such as a LIDB database) to interconnect at the ILECs' STP which is two or more elements "back" from the SCP. See, Ameritech at 49-50.

In order to interpret section 251(c)(3) so as to make practical sense, it must be recognized that use of the concept of "technically feasible point" does not intend or require that such a "point" would necessarily represent the point of physical interconnection between the requesting carrier and the ILEC's network. Rather, the access to the ILECs' network elements must be contemplated to be at least in many instances through other ILEC facilities or elements that the requesting carrier obtains from the ILEC and combines in order to create a workable network configuration.

But any effort to require a requesting carrier to have some minimum number or type of facilities would require complex, and ultimately arbitrary, line-drawing. Would it be sufficient for the competitor's billing or order processing system to be linked to the ILEC's network? Would it be sufficient if the carrier were providing call management features using its own database? In the case of a local exchange/exchange access service, would it be sufficient if the competing carrier provided links between the ILEC tandem and some or all of the interexchange carrier POPs that would be used in carrying interexchange calls, or would it also be necessary for the requesting carrier to provide interoffice facilities that would carry some (or all) of its customers' local calls? Would a competing carrier be unable to obtain both loops and switching from an ILEC, as Bell Atlantic seems to suggest?[33] Would a facilities requirement apply to services offered generally by the requesting carrier or to each specific service or service option provided? Would such facilities

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[33] Bell Atlantic at 13. Any such limitation would be likely to have substantial anticompetitive effects. Although the unbundling of the loop is an important aspect of opening up local markets to competition, it is not always a quick or easy solution to getting a competing carrier connected to its customers. In jurisdictions which have begun to open up local markets by requiring the unbundling of the local network into the loop transport, local switching and interoffice transport elements, a variety of problems have developed in separating a customer's loop transport from the local switch, including problems arising from limited capacity to cut-over loops that are integrated into local switches, or an inability to test loops where the testing is designed to be performed by the local switch. Although these problems presumably can be worked out, it will clearly be of substantial importance for competing local carriers to maintain the option of interconnecting at the local switch in order to serve customers connected to the central office. Such an arrangement, of course, requires access to both loop transport and local switching.

have to be used in providing the service to every one of the competing carrier's customers, or merely some portion of those customers? Would the facilities have to be used in connection with every call made by each customer?

To enforce any of these possible requirements, the ILEC might well demand to see the detailed network arrangements for the provision of every one its competitor's planned services as a condition for providing access to any needed network elements. Aside from the anticompetitive effect of requiring the disclosure of such information to its competitor, this requirement would present substantial opportunities for the ILEC to delay the introduction of such services by raising claims that insufficient facilities of the connecting carrier would be involved in the service. Ultimately, either this Commission or the state authorities would be called upon to resolve these disputes.

Similar issues would likely arise if the Commission were to seek to prevent purchase of network elements for a competing carrier's use in providing services that it could purchase pursuant to section 251(c)(4). If a general similarity of services were to be deemed sufficient to prevent access to unbundled elements, then this limitation would effectively strike section 251(c)(3) from the statute, since entrants will certainly wish to provide services that are close substitutes for the ILECs' current services. If the proponents of this restriction contemplate a different standard, it is unclear what it might be or how it would be applied in practice. BellSouth goes so far as to suggest that if a service is available at a wholesale rate,

a denial of access to unbundled elements comprising that service would be required by section 251(d)(2), because such denial would not "impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer." BellSouth at 32-33. But under any reasonable reading of this statutory language, BellSouth's argument fails, since an entrant's ability to provide a service is certainly "impaired" by actions that would make such provision substantially more costly. To construe the term "impair" as a synonym for "entirely prevent," as BellSouth seems to suggest, would lead to the conclusion that the statute did not intend to permit the use of unbundled loops for the provision of competing local exchange services, a result that was clearly not intended by the statute.[34]

The Department strongly believes that any attempt by the Commission or the states to restrict the availability of unbundled network elements under section 251(c)(3) on the grounds that the requesting carrier could provide service using the resale provisions of section 251(c)(4) would substantially undermine a critical component of the statutory scheme to foster competitive local markets. There is no sound basis for the view that the resale provisions are to be considered preeminent vis a vis the duty to provide access to unbundled network elements. The fact that the ILECs themselves concede the competitive impact of access to unbundled

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[34] In addition, as explained in our initial comments, the service provided by combining unbundled elements would be substantially different than the ILEC's retail service. Department Comments at 49-50.

elements clearly demonstrates the importance of this vehicle for competitive entry. The Commission should flatly reject this proposal.

VI. THE ADOPTION OF PROCOMPETITIVE POLICIES WILL BENEFIT RESIDENTIAL CUSTOMERS.

Some commenters have suggested that the procompetitive policies advocated by the Department should not be adopted because, these commenters assert, such policies would adversely impact the rates for residential customers. If carrier-to-carrier prices are based on economic cost and if the entrants who obtain the elements at such prices can use them freely to provide exchange access and other services from which ILECs currently derive substantial profits, competition will likely erode the ILECs' profits from providing a variety of high margin services. ILECs and others have argued, however, that these profits are used to maintain low rates for local residential service, and that if competition reduces or eliminates these profits, rates for residential customers will have to be increased. These arguments are incorrect.

A preliminary estimate by the Department, focusing only on some of the likely benefits of competition, suggests that residential customers would derive substantial benefits -- possibly more than $12 billion annually -- from the development of competitive markets in which prices reflect economic costs. (We expect that competition would provide very substantial benefits to business customers, as well as to residential customers, but have not attempted to estimate

possible benefits to business customers.) The Department's analysis, described in greater detail below and in the Appendix to these Reply Comments, provides additional confirmation that the pro-competitive policies tentatively proposed by the Commission, and supported by the Department in this proceeding, are in the public interest.

As we indicated in our initial comments, fully competitive markets are not incompatible with the social goals that traditionally have been promoted by regulatory policies, including the goal of enabling some consumers to obtain service without paying the full cost of that service. Competitive markets are incompatible with the cross subsidy mechanisms that regulation traditionally has used to promote such goals. In general, cross subsidy policies preserve supra-competitive pricing for some services, and require incumbent monopoly providers to use some portion of their profits from these services to offer other services at prices below their true economic costs. Efforts to protect the incumbents' excess profits in high-margin services will impede the development of competition; therefore, if regulators wish to preserve below-cost pricing for some services, they should do so through new policies that will be competitively neutral, rather than by preserving obsolete policies that will create artificial competitive advantages for incumbent monopolists.

Adherence to this principle is essential if the Commission is to achieve the fundamental objective of the Telecommunications Act to promote competition in

local telephone services. But we also recognize that in considering these issues, the Commission and the states will undoubtedly wish to understand the practical magnitude of the effects on various users of telecommunications services that might be associated with the development of competitive markets, in the absence of yet-to-be-adopted, competitively neutral policies to mitigate those effects in furtherance of important social goals. Therefore, the Department has undertaken an analysis of the potential effects on prices for residential telephone services if residential service prices reflected the real economic cost of providing those services.

Any estimate of such costs, of course, is subject to many limitations. One of the more important limitations is the difficulty of predicting the ways in which the competitive process, itself, will change such costs over time, e.g., by generating changes in demand, improvements in technology, and more efficient network engineering. Estimates of current economic costs are simpler, but require substantially more data than is available to the Department at this time. Our analysis uses the Hatfield Associates study as the basis for estimating the economic costs of providing local telephone service; different cost estimates, of course, will yield different conclusions.[35] We have also drawn on a variety of other estimates concerning the costs, prices, and usage of access services, basic residential service,

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[35] We have not attempted to evaluate the methodology or conclusions of the Hatfield Associates study. We have, however, conducted analysis using alternative assumptions regarding some of the cost components estimated in the Hatfield Associates study, with results that are reported in the Appendix.

and toll services. Based on these estimates, the Department has analyzed the potential effects on the prices that residential customers would pay for basic local service and toll services.

Broadly speaking, such cost-based pricing would differ from current prices in two respects. First, most commenters in this proceeding seem to believe that current prices, based on ILECs' historical costs, are substantially greater on average than prices that would prevail if prices reflected economic costs. In a competitive market, prices would be driven toward economic costs, resulting in very substantial overall savings for consumers. Second, there is substantial geographic variation in the cost of basic residential service, which depends in large measure on the population density of the area in which such service is provided. In a competitive market, these geographic differences in cost would be reflected in different retail prices, unless policies are adopted to encourage uniform retail prices across regions. The Department's analysis attempts to examine the effects of retail prices of both of these factors. While this analysis should be regarded as a preliminary, rough estimate of these effects, we believe the analysis will be helpful to the Commission in understanding the practical effects (unless supplemented by competitively neutral policies to mitigate these effects) of the development of competitive markets for local telephone services.

The Department's analysis, which does not attempt to measure many of the potential benefits that will likely result from more competitive markets, indicates

that such cost-based pricing would differ from current pricing in the following ways. We estimate that under cost-based pricing:

(1) The aggregate bill for basic residential service and toll services for all residential customers would decline by $11.9 billion annually.

(2) The national average price of basic local telephone service for residential customers would not change significantly from current levels.

(3) Residential customers would see substantial decreases in the price of intrastate and interstate toll services, with aggregate savings to residential customers totalling roughly $12.1 billion annually.

(4) Because of substantial differences among residential customers, the costs and benefits of cost-based pricing (when compared to current pricing) would be shared unevenly among those customers, absent the adoption of new regulatory policies to mitigate such differences. Specifically,

   (a) Consumers would benefit from reduced toll prices in proportion to their usage of toll services; high-volume users would obtain more of these benefits than low-volume users.

   (b) For roughly 70 % of residential consumers (those who live in densely-populated areas) the price of basic local service would be lower than, or roughly equal to, today's national average

price. The aggregate savings in basic local service rates for these consumers (assuming they are currently paying the average price for basic local service) would be approximately $6.7 billion annually. For approximately 30 % of residential consumers (those who live in sparsely populated areas), the price of basic local service would be greater than the current national average price Assuming that these customers currently pay average rates, aggregate payments for basic local services for this group would increase by approximately $6.9 billion annually. However, this group would also obtain benefits (approximately $3.4 billion annually) from lower prices for toll services that would partially offset the higher rates for basic local service, leaving this group with an aggregate bill, for both basic residential service and toll services, approximately $3.5 billion greater than under current average prices.

These conclusions are necessarily rough estimates, due to limitations of time and the available data. Moreover, the Department's analysis relies on a number of simplifying assumptions that should be clearly understood,[36] and this analysis does not attempt to measure many of the likely benefits of competition.

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[36] A more detailed discussion of those simplifying assumptions is contained in the Appendix.

This analysis attempts to measure the effects on residential customers if all toll and basic local service prices change to fully reflect changes in costs. As we explained in our initial comments, however, the emergence of competition that will drive prices towards costs will be a gradual process, rather than a "flash cut." Thus, the price decreases and increases assumed by the Department's analysis would occur over time, as competition emerges: the aggregate impact estimated by the Department would be experienced after the development of substantial competition, not overnight. Moreover, as competition develops, it is likely, to some extent, to affect many of the underlying conditions (e.g., product characteristics, consumer demand, and network technology) that affect service costs. For that reason, the Department's analysis might better be regarded as an indication of the direction in which prices would move, rather than the level they would immediately reach.

It should also be emphasized that the emergence of competition can be expected to produce many benefits that this analysis does not attempt to measure. First, this analysis focuses only on the potential impact on prices to residential customers, who are thought to be the principal beneficiaries of the cross subsidies encouraged by traditional regulatory policy. We expect business customers more consistently to benefit from the cost based pricing that competition will promote.

Second, the analysis looks only at the costs and prices of basic[37] local

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[37] For the purpose of our analysis, "basic local telephone service" is synonymous with unlimited private-line touch-tone service for residential customers.

telephone service. It does not reflect the likely reduction in prices for "vertical" services, including services such as call waiting, call forwarding, voice mail, or three way calling. These services typically are "high margin" services priced substantially above cost, and the emergence of competition can be expected to lead to significantly lower prices for all residential customers who use such services.

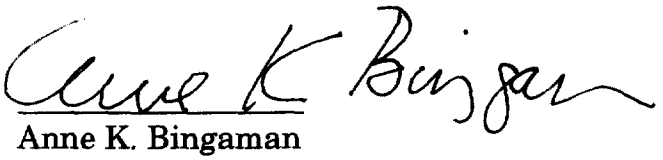
Third, the analysis does not attempt to measure any of the indirect benefits that residential customers are likely to obtain from more competitive markets. Greater innovation is one important category of such benefits. Such innovation is likely to result both in new services, and in technological improvement that will reduce the cost of providing existing services. We note, in particular, the possible impetus to develop wireless loop technology that could substantially reduce the cost of providing service to customers in sparsely populated areas, which are now among the most costly to serve.

Residential customers would also benefit indirectly from lower prices of telecommunications services to businesses. In the long run, these business cost reductions are likely to be passed on to consumers in the form of lower prices for the products and services produced by these businesses. Finally, the lower prices for residential toll service are likely to result in an increase in toll usage, providing additional benefits from increased calling that are not measured in the Department's analysis.

The record that is before the Commission in this proceeding provides strong

support for the adoption of the procompetitive policies needed to effectively implement the Telecommunications Act. The Department's analysis of the potential effects of such policies on residential customers provides further support for this conclusion. In particular, this analysis suggests that residential customers as a group would derive substantial economic benefits from the development of competition. Moreover, if they choose to do so, the Commission and the states will be able to adopt in an expeditious time frame, competitively neutral policies to mitigate any adverse effects on the minority of residential customers who might otherwise face higher rates for telecommunications services. The aggregate potential "losses" for this minority of residential customers are small in relation to the aggregate gains that will be experienced by the majority of residential and business customers.

Respectfully submitted,



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APPENDIX

Residential Telephone Services Prices in Competitive Markets

In response to questions that have been raised about the prices that residential telephone consumers might pay if telephone services were more competitive, the Department of Justice has undertaken a preliminary analysis of this issue. Our analysis contains two sets of calculations: one set of calculations concerned with local service and another with long distance service.[1] Before describing those calculations in detail, it is useful to review the question we posed and the basic framework of analysis we chose to answer that question.

Speaking loosely, our analysis should be understood as an attempt to obtain a preliminary, rough estimate of the prices for basic local telephone service and toll services for residential customers that might prevail if local exchange and access markets were competitive, and if no new regulatory policies were adopted to reduce the geographic variations in prices that might otherwise be associated with competitve pricing.[2] Starting from the truism that competition in local telephone

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[1] Some parties question whether loop costs are properly assigned to local calling, toll calling or both. This discussion misses the point, which is that loop costs dedicated to a particular residential subscriber are largely invariant to the subscriber's volume of calling, be it local or toll. Thus, in sparsely populated areas where wireline loop costs are high, a residential customer that does little toll calling does not pay the full economic cost of service.

[2] The analysis can also be used to estimate the cost of ensuring that the groups of residential customers who live in high cost geographic area would not be required to spend more for basic telephone service than a hypothetical "average customer" spends today.

markets will tend to drive prices toward economic cost, and the fact that current prices for basic local service are either greater than or less than economic cost for many customers, we estimate the amount by which the economic cost of local service differs from average residential prices.[3] Local residential service is not, however, the only telephone service where competition will push prices toward costs. Competition, and changes in regulatory policy, will also reduce access charges (along with other service prices currently set above cost) resulting in lower toll service prices. Lower toll prices will benefit both high cost and low cost residential customers.[4] The second output of our analysis quantifies the benefits of lower toll prices to local customers.

Two qualifications should immediately be noted. First, we have not estimated the effects of local competition on individual residential customers' welfare. Although this would be an interesting number, as a practical matter we cannot estimate it with the publicly available data because they do not contain *individual* telephone usage and cost data, but instead contain *group* data.[5] The

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[3] We have not considered other possible social goals such as expanding telecommunications usage through, for example, low internet connection prices to schools, libraries, etc.

[4] An ironic and inefficient aspect of today's regulated local service is that subsidized local customers who use long distance pay for (at least) some of their subsidy themselves through local access charges.

[5] The distinction between groups and individuals arises in our toll service calculations. Individual toll usage varies widely across consumers. By some accounts, as many as 30 percent of local customers make no toll calls in a given month. Obviously, consumers who do not make toll calls will not directly benefit

discussion below identifies certain instances where our analysis of group data gives different results than would an analysis of individual data. Second, we emphasize that an estimate of effects on consumer groups' welfare is different from, though clearly related to, an estimate of the net benefits of competitive local telephone markets.[6] The Department is confident that moving local service prices to costs will provide substantial net benefits to society

Local Service Calculations

There are three basic inputs to our local residential service calculations: 1) the economic cost of providing service, 2) the revenues received by the service provider, and 3) the number of high cost residential customers. The Department used local service cost estimates developed by Hatfield Associates for MCI in its calculations.[7] Hatfield's model estimates six levels of local service costs associated with six population density categories. Hatfield's model also estimates the total number of access lines in each density category. We assumed all access lines in the least dense category were residential, and adjusted Hatfield's total number of

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from reduced access charges (although they may indirectly benefit by receiving more toll calls as prices decrease). We report the toll benefit for an "average" consumer and the aggregate toll benefits accruing to each group.

[6] One important difference is that the former only measures losses to consumers while the latter measures losses to both consumers and producers.

[7] "The Cost of Basic Network Elements: Theory, Modeling and Policy Implications" March 29, 1996. We have not attempted to evaluate the methodology or conclusions of the Hatfield Associates study

access lines in the remaining categories by a ratio derived from the number of residential access lines to total access lines, to get the number of residential access lines in each density category.[8] The cost elements and number of residential access lines for each service category are detailed in Table A.1. We used the 1994 national average local residential rate for unlimited calling with touch-tone service, excluding taxes, of $17.63 as our residential service price.[9]

Our estimate of the amount by which the economic cost of local service exceeds the revenues generated by an average customer is simply the difference between the cost of service in high cost regions and the price for that service, multiplied by the number of high cost customers in each region. Figure A.1 provides an illustration of the method. High cost customers are contained in the first two categories, and the extent to which the economic cost of providing service to these customers exceeds the average price for residential service is measured by the size of the area in the first two columns that is above the residential service line of $17.63. Our estimate of this revenue shortfall for basic local service is

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[8] Data for the adjustment were taken from the 1994/1995 edition of the Commission's Statistics of Communications Common Carriers, Table 2.10. The adjustment ratio we employed compensates for the fact that we assumed all lines in the least densely populated category are residential.

[9] See the Common Carrier Bureau's Reference Book: Rates, Price Indexes, and Household Expenditures for Telephone Service, by Susan McMaster and James Lande, November 1995, p. 20 (hereafter "Reference Book").

$6,867,777,058.[10] Looking at the next four columns, the area below the average residential service price but above the columns measures the extent to which the economic cost of providing service is below the average residential price for low cost customers. Our estimate of this revenue surplus is $6,681,375,145.

We altered some of the assumptions of the Hatfield Associates study to check the sensitivity of its results. Table A.2 contains the input data for this analysis. In the base case model, TSLRIC costs were based on a 10 percent after tax rate of return on invested capital (12 percent on equity) and a 6 percent overhead. Upon request, MCI provided runs of Hatfield Associates' model with network element costs constructed using the Commission's allowed interstate rate of return on invested capital, 11¼ percent[11], and including overheads at 18.05 percent.[12] The Department replaced the retailing costs supplied to it by MCI with 25 percent[13] of the $17.63 average flat-rate bill, or $4.41 These assumptions produce an increase

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[10] This number can be interpreted as an estimate of the amount required to ensure that the groups of residential customers who live in high cost geographic area would not be required to spend more for basic telephone service than a hypothetical "average customer" spends today.

[11] The implied rate of return on equity is 14.08 percent.

[12] The 18.05 percent overhead figure is approximately that booked by Ameritech.

[13] We understand that Tennessee adopted 25 percent as the wholesale discount available to resellers of residential flat-rate services. Other states with designated resale discount rates include California (10 percent), Michigan (4 percent), Illinois (5 percent), Louisiana (10 percent), Texas (5 percent). Rochester telephone also adopted a 5 percent discount.

in the monthly cost of providing local service, averaged over all density categories. The increase is smaller in densely populated areas and larger in sparsely populated ones. These changes were used simply to explore the sensitivity of the model to changes in assumptions. We have no reason to believe the 18.05 percent figure is more appropriate than the 6 percent used by Hatfield Associates -- competition has produced major cost reductions when introduced to other regulated industries. The Department has not performed a detailed independent investigation of the appropriate cost of capital for the relevant activities. Using these alternative assumptions we estimated the basic local service revenue shortfall for the two least densely populated categories to be $9,499,616,127 The corresponding revenue surplus for the four more densely populated categories is $3,053,463,831.

Three caveats apply to these estimates. First, it is obviously not true that all residential customers purchase unlimited private line service. Some customers choose measured service plans with lower prices[14], while others choose higher-priced plans with additional features like call waiting and voice messaging. The limited data that we have seen suggests average local telephone bills, excluding toll calls, may exceed the average price for unlimited private line service. For example, PNR and Associates reports the average local bill, excluding toll calls but including taxes, was $24.48 in 1995. Thus the average unlimited private line price may

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[14] The average monthly bill for the lowest generally available plan is $10.10, excluding taxes and 911 charges but including Federal and state SLC charges. Reference Book, p. 20.